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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,785	09/26/2003	Gil R. Hawley	51757-0331 (51757-288237)	9695
35395	7590	10/07/2005	EXAMINER CHOI, LING SIU	
WOMBLE CARLYLE SANDRIDGE & RICE, PPLC CHEVRON PHILLIPS CHEMICAL COMPANY LP P.O. BOX 7037 ATLANTA, GA 30357-0037			ART UNIT 1713	
PAPER NUMBER				

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/672,785

Applicant(s)

HAWLEY ET AL.

Examiner

Ling-Siu Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-45 and 49-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12,14,16,18 and 43-45 is/are allowed.
- 6) ☒ Claim(s) 11,13,15,17,19-30,49-53 and 55-59 is/are rejected.
- 7) ☒ Claim(s) 31-42 and 54 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/26/03
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Application is a Division of US Application No. 09/639,836, filed August 126, 2000, now US Patent No. 6,667,274.

2. This Office Action is in response to the Preliminary Amendment filed September 26, 2003. Claims 1-10 and 46-48 were canceled and claims 11-45 and 49-59 are now pending, wherein claims 11-14 and 49-51 are drawn to a process to produce a catalyst composition; claims 15-30 and 52-53 are drawn to catalyst composition; claims 31-45 and 54-59 are drawn to a polymerization process

### ***Claim Objections***

3. Claim 54 is objected to because of the following informalities: claim 54, "contacting the catalyst composition of claim 51" is suggested to be changed to -- contacting the catalyst composition obtained by the process of claim 51--.

Appropriate correction is required.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims **11, 13, and 49-51** rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 and 4-5 of U.S. Patent No. 6,107,230 (McDaniel et al) in view of US 4,767,735 (Ewen et al).

Claims **15, 17, 19-30, and 52-53** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7 and 20 of U.S. Patent No. 6,107,230 (McDaniel et al) in view of US 4,767,735 (Ewen et al).

McDaniel et al. disclose all limitations except the use of olefin in the present claims. Ewen et al. disclose that prepolymerization of the catalyst increases catalyst activity and provides for better isotactic control of the polymer product, which results in a product of increased bulk density (col. 2, lines 62-65). In light of such benefit, it would have been obvious to use an olefin in the catalyst preparation.

### ***Allowable Subject Matter***

6. Claims 11-45 and 49-59 are allowable over the closest references: McDaniel et al. (US 6,107,230).

A catalyst composition comprising a contact product of		
1	a catalyst precursor	at least one treated solid oxide compound
		at least one <b>alpha olefin</b>
	wherein the at least one treated solid oxide compound comprises a contact product of at least one solid oxide compound, at least one electron-withdrawing anion source compound, and optionally, at least one meta; salt compound	
2	at least one organometal compound	$M^1(X^1)(X^2)(X^3)(X^4)$
	wherein $X^1, X^2$ = cyclopentadienyl, indenyl, fluorenyl, substituted cyclopentadienyl, substituted indenyl, substituted fluorenyl; $M=[Ti, Zr, Hf]$	
3	at least one organoaluminum compound	$Al(X^5)_n(X^6)_{3-n}$

(summary of claim 15)

A catalyst composition comprising a contact product of	
1	a catalyst precursor: a chlorided, zinc-containing alumina and <b>propylene</b>
2	at least one organometal compound: rac-dimethylsilylbis(1-indenyl) zirconium dichloride, rac-1,2-ethanediylbis(1-indenyl)zirconium dichloride, or rac-dimethylsilylbis(2-methyl-1-indenyl)zirconium dichloride
3	at least one organoaluminum compound: triethylaluminum or triisobutylaluminum

(summary of claim 16)

McDaniel et al. disclose a catalyst composition obtained by the contact of at least

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one organometal compound, at least one treated solid oxide compound, and at least one organoaluminum compound, wherein the at least one organometal compound is  $M^1(X^1)(X^2)(X^3)(X^4)$  with  $X^1$  being cyclopentadienyl, indenyl, fluorenyl, substituted cyclopentadienyl, substituted indenyl, substituted fluorenyl; the at least one organoaluminum compound is  $Al(X^5)_n(X^6)_{3-n}$ ; the at least one treated solid oxide compound comprises a contact product of at least one solid oxide compound, at least one electron-withdrawing anion source compound, and optionally, at least one metal salt compound (claim 1). However, McDaniel do not teach or fairly suggest a catalyst composition comprising at least one alpha olefin.

### ***Conclusion***

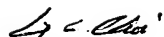
7. Claims 31-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114.

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**LING-SUI CHOI**  
**PRIMARY EXAMINER**

September 28, 2005